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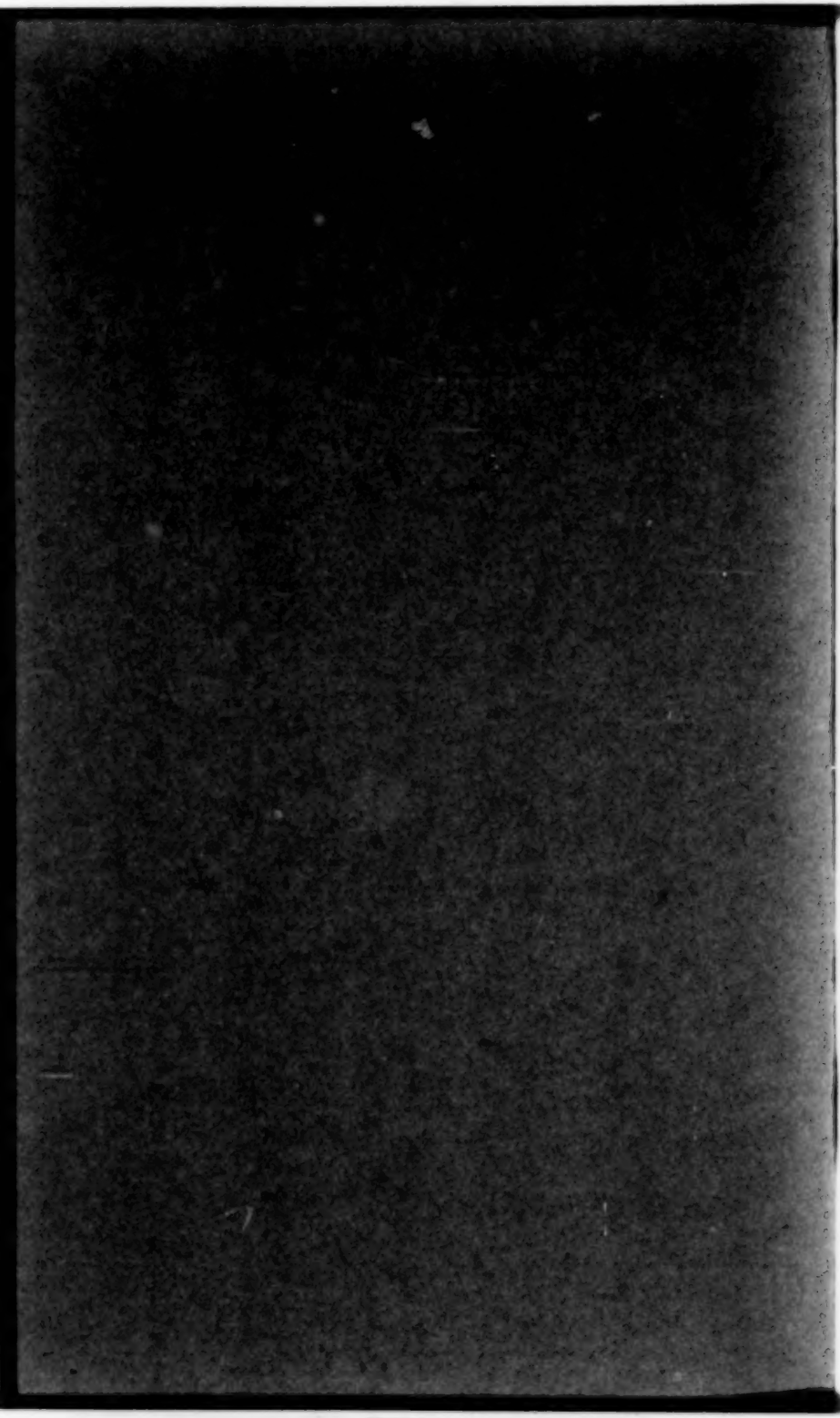

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The petitioner, Vermont Yankee Nuclear Power Corporation, files this Supplemental Brief and Supplemental Appendix pursuant to the provisions of Rule 24(5) of the Supreme Court Rules, respectfully calling the Court's attention to intervening matter not available at the time the Petition for a Writ of Certiorari was filed in this matter.

EVENTS SINCE THE FILING OF THE PETITION

The petition in this matter was filed on September 21, 1976. Since that date events have occurred, both in the Court of Appeals and in the Nuclear Regulatory Commission (the "Commission"), which emphasize the importance of the questions presented for this Court's review.

A. Action Taken By The Court of Appeals.

The Court of Appeals' opinion as originally filed referred repeatedly to the Commission hearing board's failure to question an important witness, Dr. Pittman. See Appendix to the Petition ("App.") 34 n.53, 35, 41 n.59. In fact, however, Dr. Pittman was asked a number of questions by the hearing board (see Petn. 19 n.17), and the Nuclear Regulatory Commission pointed this out to the Court of Appeals in a motion for correction. In response to this motion the Court of Appeals issued on October 8, 1976, an Order of correction. The Order simply deleted from the opinion three references to the supposed failure to question Dr. Pittman. The original opinion of the Court of Appeals appears in the Appendix to the Petition (App. 1-59); the Order of correction is reprinted in the Supplemental Appendix filed herewith (Supp. App. 1).[1]

[1] The court failed to correct another statement implying that Dr. Pittman had not been subjected to questioning. *Compare* App. 35 *with* Supp. App. 2.

On October 8 the Court of Appeals also granted four motions for stay of mandate, including that of the petitioner, "on condition that the United States Nuclear Regulatory Commission shall make any licenses granted between July 21, 1976 and such time when the mandate is issued subject to the outcome of the proceedings herein." The Court of Appeals' Order staying its mandate is reprinted in the Supplemental Appendix (Supp. App. 3).

B. Action Taken By The Nuclear Regulatory Commission.

On October 13, 1976, the Nuclear Regulatory Commission promulgated a notice of proposed rulemaking, setting out "an interim rule" for use — while proceedings with respect to a final rule were going forward — in considering the environmental impacts of fuel reprocessing and waste management. The proposed interim rule together with its statement of reasons and basis, 41 Fed. Reg. 45849 (October 18, 1976), is reprinted in the Supplemental Appendix (Supp. App. 5).

On November 5, 1976, the Commission took action in a number of individual licensing proceedings. One of these licensing proceedings involved the petitioner Vermont Yankee. In this latest *Vermont Yankee* decision the Nuclear Regulatory Commission concluded that it was free to suspend the proceedings against Vermont Yankee, which it had begun upon its own motion following the Court of Appeals' decision in the present case, and it did so. The Commission based its conclusion on a determination that the interim rule on the environmental effect of the uranium fuel cycle was not likely to be substantially different from the rule now in place and on its analysis of the Court of

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Appeals' stay of mandate order. The Commission relied upon the reasoning in *Public Service Company of New Hampshire,* Nos. 50-443, 50-444, CLI-76-17, N.R.C.I.-76/11-— (Nov. 5, 1976), issued the same day. The *Vermont Yankee* and *Public Service Company of New Hampshire* decisions are reprinted in the Supplemental Appendix (Supp. App. 25, 29).

Also on November 5, 1976, the Commission promulgated a Supplemental General Statement of Policy, 41 Fed. Reg. 49898 (Nov. 11, 1976). This Statement announced that the Commission would not initiate show cause proceedings against present holders of construction permits, limited work authorizations, or operating licenses for nuclear reactors and that the Commission would suspend show cause proceedings already begun pursuant to the original General Statement of Policy. The Supplemental General Statement also expressed the Commission's conclusion that licensing could resume in individual cases whenever it could be found that use of the numerical values of the proposed interim rule would not "tilt the cost-benefit balance against the issuance of the license." The Supplemental General Statement of Policy is reprinted in the Supplemental Appendix (Supp. App. 20).

EFFECT ON THE PETITION OF INTERVENING EVENTS

The events occurring since the petition was filed in this case demonstrate the national importance and effect of the Court of Appeals' decision, and the concomitant importance of review of that decision by this Court.

I. The Court of Appeals' Opinion, as Amended, Indicates No Defect in the Agency's Record or Procedures Justifying Substitution of the Court's Judgment for That of the Agency.

The Court of Appeals has amended its opinion without any attempt to reconcile the actual facts with its previously stated rationale, thus underscoring the extent to which it disregarded the record and the technical expertise of the Nuclear Regulatory Commission and imposed mysterious procedural requirements without basis. See Petn. 13-15, 18-20. By the simple device of excising from its 44-page opinion three lines of text and ten lines of footnotes, the Court of Appeals removed the only specific procedural criticism which it made of the agency record.[2] All that remain in the Court of Appeals' opinion are statements referring to "the vagueness of the presentation" (App. 35), the agency's supposedly uncritical reliance on "extremely vague assurances by agency personnel" (App. 38), and an asserted failure to meet an undefined requirement for "ventilation" (App. 19). None of these supposed deficiencies, however, violates any procedural duty imposed upon the

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[2] There are portions of the Court of Appeals' opinion in which the court appears to be criticizing the substance of the agency record, rather than its procedures. See, *e.g.*, App. 35-38. This criticism is, however, explicitly grounded upon the agency's supposed procedural failings. Thus, the Court of Appeals — in a portion of its opinion which it did not correct — states:

> "We do not dispute these conclusions [that the future environmental effects from the disposal of high-level nuclear wastes are negligible]. We may not uphold them, however, lacking a thorough explanation and a meaningful opportunity to challenge the judgments underlying them. . . . Given the opportunity, Dr. Pittman might have provided convincing answers to many of the questions which his statement leaves untouched. Since that did not occur, however, his judgments must either be accepted at face value, or rejected out of hand." App. 34-35.

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Nuclear Regulatory Commission by Congress. See Petn. 13-18.

II. The Nuclear Regulatory Commission's Effort to Engage in Conditional Licensing Illustrates the Impact of the Court of Appeals' Decision on the Field of Administrative Law.

Recent developments show the turmoil which the Court of Appeals' decision will create in the field of administrative law. As matters presently stand, the adjudicatory processes of a technical and expert agency appear to be expressly conditional on subsequent judicial application of an unknown and probably unknowable standard. By its proposed interim rule (Supp. App. 5) and Supplemental General Statement of Policy (Supp. App. 20), the Nuclear Regulatory Commission is attempting to resume licensing nuclear plants in the United States — on a conditional basis. The Commission now proposes to have "continued licensing on the conditional basis the court suggests." Supp. App. 22.[3]

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[3] At the same time it has suspended — but not dismissed — show cause proceedings against present licensees. Supp. App. 25-28. These new Commission positions modify its initial reaction to the Court of Appeals' decision. The Commission had issued a general statement of policy imposing a moratorium on the licensing of all nuclear plants and had subjected present holders of nuclear reactor construction permits, limited work authorizations, or operating licenses to show cause proceedings. See App. 149-58. Thereafter, on October 8, 1976, the Court of Appeals provided clarification of what it sought to achieve in the *Vermont Yankee* decision. In granting various stay motions the court stated as a condition that "the United States Nuclear Regulatory Commission shall make any licenses granted between July 21, 1976 and such time when the mandate is issued subject to the outcome of the proceedings herein." Supp. App. 4.

What basis, however, did the Court of Appeals suggest? Assuming that the Court of Appeals has power to bargain with an agency in a way affecting the rights of persons not before the court, the result is to make conditional every license which will be granted by the agency and to create uncertainties (because of the still pending show cause proceedings) for present licensees, such as the petitioner, as well. The Court of Appeals specifically refused to give any advice as to what procedures, over and above those required by the Administrative Procedure Act, would satisfy it. App. 40; *see* App. 54-55 (Tamm, J. concurring). If the Court of Appeals' decision is permitted to stand, the administrative process is transformed from an effort to arrive at predictable and binding decisions in individual proceedings conducted according to understood rules, into a gamble that particular proceedings will satisfy procedural requirements the specifics of which may never be articulated.

III. The Court of Appeals Has Created in the Nuclear Industry a State of Chaos Which This Court Should End.

A reversal of the Court of Appeals' decision will remove the petitioner's license, and those of other utilities, from the state of uncertainty in which they now exist, uncertainty which has obvious ramifications in such matters as financing and power supply planning. Of at least equal importance, reversal of the decision will end the chaotic situation that exists in the area of nuclear regulation at this time.

No one presently knows if the Nuclear Regulatory Commission is on the right track as far as the Court of Appeals is concerned. The obstacles which the Commission

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faces in its effort to comply with the Court of Appeals' directives are substantial. Even if the Nuclear Regulatory Commission succeeded in identifying and addressing all those contentions which the Court of Appeals would consider "major,"[4] there can be no assurance that the Commission's procedure in doing so would be satisfactory to the court. The Court of Appeals' decision creates, but does not define, new procedural requirements. Should the Commission not satisfy the Court of Appeals' requirements for "ventilation" and "dialogue," the "condition" announced by the Court of Appeals would presumably be unsatisfied and an entire industry, now supplying a significant percentage of the nation's electricity, put in jeopardy.

The Commission's proposed interim rule, Supp. App. 5, 16-18, demonstrates the extent of the problem. The agency has requested comment on its proposed interim rule as published in the Federal Register. It is clear, however, that the Commission proposes to adopt the interim rule without public hearing. On the contrary, the Commission intends to promulgate its interim rule first and to have a hearing afterward. Supp. App. 12. The gravamen of the Court of Appeals' opinion, however, was insufficient "ventilation" of the issues. Thus, while the Court of Appeals' decision stands, it must be problematical whether the interim rule, promulgated without hearing, will satisfy a court which has previously rejected as insufficiently "ventilated" a rule promulgated after an open hearing, with

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[4] This will be no easy task. For example, the Court of Appeals criticized the Commission for its failure "to address the major contentions that were raised." App. 38. Among these points which, apparently, the Court of Appeals would like to see addressed are "basic philosophical issues concerning man's ability to make commitments which will require stable social structures for unprecedented periods." App. 36.

questioning by the hearing board and an opportunity for all interested parties to present witnesses.

The nature of a nuclear power plant dictates that many millions of dollars must be invested in engineering and design prior to even submitting an application to the Commission for initial review. It is one thing to ask the members of an industry to take calculated risks that certain designs will be found acceptable. It is quite another to ask that these millions of dollars be spent in reliance on an agency's rules where the agency is engaged in a guessing game with a Court of Appeals as to what rules will be legally satisfactory. The Court of Appeals has charged the Commission to develop procedures which may or may not be found acceptable at some later date, while specifically withholding any guidance as to what procedures might be acceptable. A regulated industry is thus forced to expend large sums of money in furtherance of its obligation to supply the nation's power, without any assurance that compliance with the regulator's rules will be legally satisfactory. Such a situation is intolerable not only to the industry, but also to the ratepayers, *i.e.*, the general public, who must eventually foot the bills. Only this Court's reversal of the Court of Appeals' decision can relieve this situation.

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CONCLUSION

We respectfully suggest that the events which have occurred since the filing of the petition, especially the Court of Appeals' admission that the fundamental factual premise of its decision, a failure to question Dr. Pittman, is nonextant, leads inevitably to one conclusion: the petition should be granted and the decision of the Court of Appeals summarily reversed.

Respectfully submitted,

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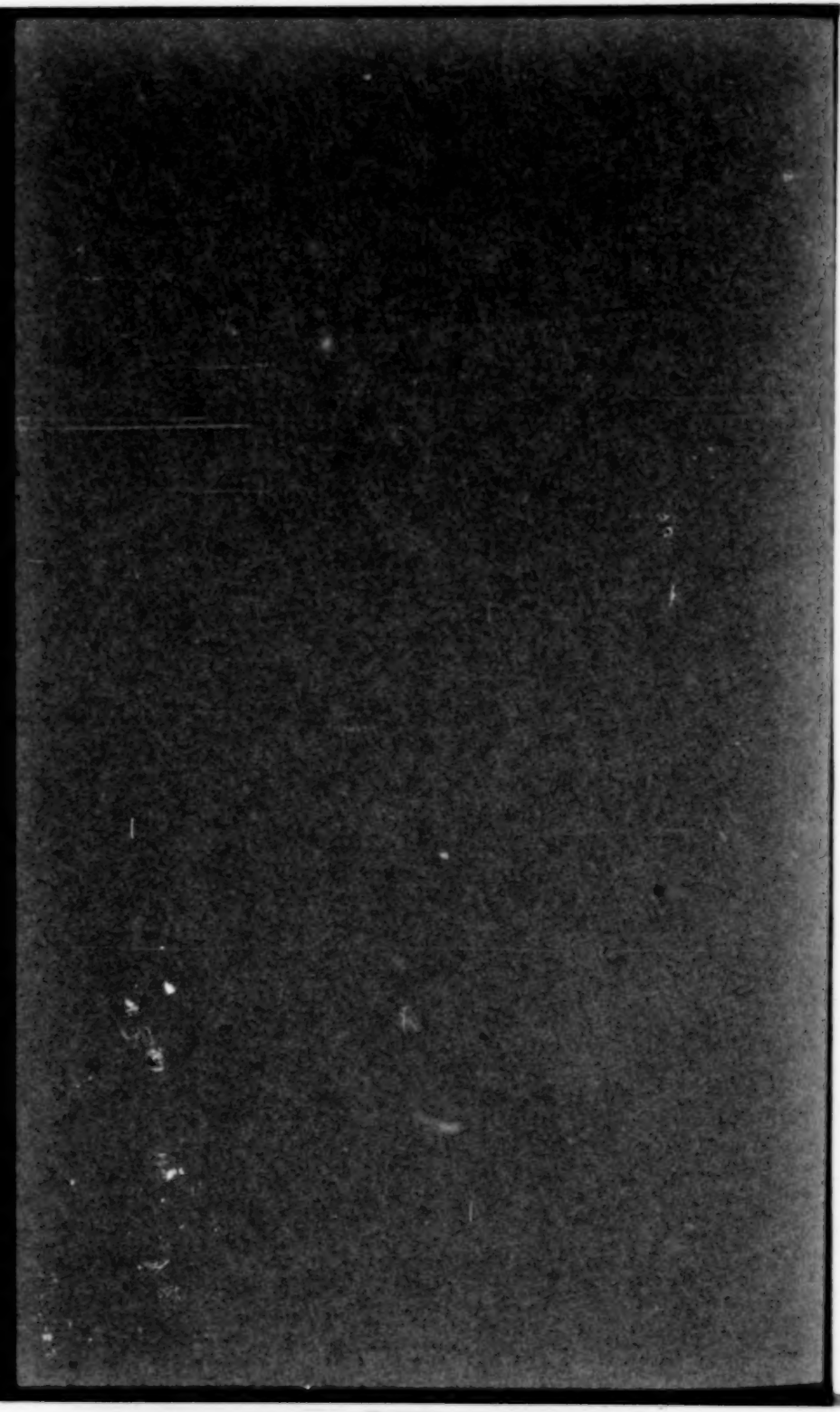

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SUPPLEMENTAL APPENDIX

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

SEPTEMBER TERM, 1976

No. 74-1385

NATURAL RESOURCES DEFENSE COUNCIL, INC., ET AL.,
Petitioners

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION AND THE UNITED STATES OF AMERICA
Respondents

VERMONT YANKEE NUCLEAR POWER CORP.,
Intervenor

No. 74-1586

NATURAL RESOURCES DEFENSE COUNCIL, INC. AND CONSOLIDATED NATIONAL INTERVENORS,
Petitioners

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION AND UNITED STATES OF AMERICA
Respondents

BALTIMORE GAS AND ELECTRIC CO., ET AL.
Intervenors

re: Bazelon, Chief Judge; Edwards*, U.S. Circuit Judge for the Sixth Circuit and Tamm, Circuit Judge.

tting by designation pursuant to Title 28 U.S. Code Section
).

ORDER

Upon consideration of the motion of respondents United States Nuclear Regulatory Commission and United States of America for stay of mandate and for correction of this Court's opinion dated July 21, 1976, and of petitioners' opposition thereto, and movants having called to the attention of the Court certain portions of the transcript of the hearing on February 1, 1973, which portions were omitted from the Joint Appendix, it is

ORDERED, by the Court, that respondents' motion for correction of this Court's opinion dated July 21, 1976, is granted in part, and the opinion dated July 21, 1976 is amended as follows:

On page 34, delete lines 3-5.

On page 34, delete footnote 53 and renumber all succeeding footnotes.

On page 41, delete the following from footnote 59:

"In this case the board members asked no questions whatsoever of Dr. Pittman. *See supra* note 53."

In all other respects, respondents motion for correction is denied.

Per Curiam

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United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

SEPTEMBER TERM, 1976

No. 74-1385

NATURAL RESOURCES DEFENSE COUNCIL, INC., ET AL.,
Petitioners

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION AND THE UNITED STATES OF AMERICA
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NATURAL RESOURCES DEFENSE COUNCIL, INC. AND CONSOLIDATED NATIONAL INTERVENORS,
Petitioners

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION AND UNITED STATES OF AMERICA
Respondents

BALTIMORE GAS AND ELECTRIC CO., ET AL.
Intervenors

Before: Bazelon, Chief Judge; Edwards*, U.S. Circuit Judge for the Sixth Circuit and Tamm, Circuit Judge.

*Sitting by designation pursuant to Title 28 U.S. Code Section 291(a).

ORDER

Upon consideration of the motion of respondents United States Nuclear Regulatory Commission and United States of America for stay of mandate and for correction of this Court's opinion dated July 21, 1976, of the motion of intervenor-respondent Vermont Yankee Nuclear Power Corp. for stay of mandate, of the motion of intervenor-respondents Baltimore Gas and Electric Company, et al. for stay of mandate, and of the motion of respondents for further stay of mandate, of the opposition of petitioners, and respondents' reply thereto, and of the document titled "Stipulation" which had been lodged in the Clerk's office by petitioners on August 16, 1976, it is

ORDERED, by the Court, that the Clerk is hereby directed to file the document titled "Stipulation" which had been lodged in the Clerk's Office by petitioners on August 16, 1976, and it is

FURTHER ORDERED, by the Court, that the foregoing motions for stay of mandate are granted, and the Clerk is directed not to issue the mandate herein prior to October 31, 1976, on condition that the United States Nuclear Regulatory Commission shall make any licenses granted between July 21, 1976 and such time when the mandate is issued subject to the outcome of the proceedings herein.

Per Curiam

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NUCLEAR REGULATORY COMMISSION
[10 CFR Part 51]

LICENSING AND REGULATORY POLICY AND PROCEDURES FOR ENVIRONMENTAL PROTECTION

Uranium Fuel Cycle Impacts From Spent Fuel Reprocessing and Radioactive Waste Management

Pursuant to the National Environmental Policy Act of 1969 (NEPA), an environmental impact statement is prepared by the Commission in connection with issuance of a construction permit or operating license for each light water nuclear power reactor. These statements contain a detailed evaluation of the environmental impacts of construction and operation of the plant and a discussion of reasonable alternatives, as well as an overall assessment of the costs and benefits of the licensing action.

In November 1972, a document entitled "Environmental Survey of the Nuclear Fuel Cycle" was published by the Directorate of Licensing of the Atomic Energy Commission (AEC). The purpose of that document was to establish a technical basis for informed consideration of environmental effects of the uranium fuel cycle in the environmental impact statements for individual light water power reactors (LWR's). In the Survey the nuclear fuel cycle was treated generically. This permitted an overview of the entire industry without the need to evaluate particular plants. To compensate for the consequent lack of specific site and design detail, estimates were made of effluent concentrations, radiation dose rates, and human population densities appropriate to the model fuel-cycle facilities. This approach was necessary because it was not possible to trace the fresh and spent fuel for an individual reactor back or forward

through the fuel cycle and thereby pinpoint environmental impacts at specific plants at specific points in time.

Comments on the Environmental Survey were solicited, and an informal rulemaking hearing was held on February 1 and 2, 1973. The purpose of the hearing was to consider possible amendments of Appendix D of 10 CFR Part 50 which would, by rule, specify the environmental effects of the uranium fuel cycle to be factored into the assessment of costs and benefits in environmental impact statements for individual LWR's. Written comments were received in response to the *Federal Register* notice, and recommendations for improvement were offered during the hearings. After consideration of the written comments and the hearing record, the AEC promulgated the final fuel cycle rule (so-called Table S-3) on April 22, 1974 (39 FR 14188). It was intended that, with the inclusion of environmental impacts from Table S-3, the environmental impact statements for individual LWR's would represent a full and candid assessment of costs and benefits consistent with the legal requirements and spirit of NEPA. The AEC indicated in its decision that the rule and survey would be reexamined from time to time to accommodate new information.*

The same Table S-3 is now included in 10 CFR Part 51.

On January 19, 1975, the Atomic Energy Commission was abolished and its licensing and regulatory responsibilities transferred to the Nuclear Regulatory Commission (Commission). On July 21, 1976, the United States Court of Appeals for the District of Columbia Circuit decided

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*In this regard, the Nuclear Regulatory Commission Staff is initiating a study designed to examine information that has developed since promulgation of the fuel cycle rule in 1974 for the purpose of updating the rule in areas other than waste management and reprocessing.

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Natural Resources Defense Council v. *NRC*, a case involving judicial review of the fuel-cycle rule, and *Aeschliman* v. *NRC*, a related case involving the exclusion of fuel cycle issues from an individual power reactor licensing proceeding. The Court approved the overall approach and methodology of the fuel cycle rule. It found that, "[r]egarding most phases of the fuel cycle . . . the underlying Environmental Survey represented an adequate, even admirable job, of describing the processes involved." The Court noted that the survey assembled data on consumption of resources, discussed the risks of accidents and other hazards in detail, and provided numerous references to the scholarly literature and technical reports in support of the conclusions as to environmental impact. However, the Court found that the rule was inadequately supported by the record insofar as it treated two particular aspects of the fuel cycle — the impacts from reprocessing of spent fuel and the impacts from radioactive waste management.

The Commission issued a General Statement of Policy (41 F.R. 34707, August 16, 1976) in response to the decisions. In that statement, the Commission announced its intention to reopen the rulemaking proceeding on the environmental effects of the fuel cycle to supplement the existing record on waste management and reprocessing impacts and to determine whether the rule should be amended, and, if so, in what respect. The Commission directed the Staff to prepare on an expedited basis a well-documented supplement to the survey to establish a basis for identifying environmental impacts associated with fuel reprocessing and waste management activities that are attributable to the licensing of a model lightwater reactor.

The revised survey, "Environmental Survey of the Reprocessing and Waste Management Portions of the LWR

Fuel Cycle," NUREG-0116 (Supplement 1 to WASH-1248) (hereinafter referred to as "supplement"), has now been completed and copies are available for public inspection at the Commission's Public Document Room at 1717 H St., N.W., Washington, D.C. 20555.

In the original fuel cycle rule the environmental impacts for the fuel cycle activities necessary for the support of a LWR were summarized in a Table S-3. These effects were also displayed by type of activity in Table S-3A of WASH-1248, April 1974. In the supplement, only the environmental impacts that would fall under the columns entitled "Reprocessing" (Column F) and "Waste Management" (Column G) of Table S-3A of WASH-1248 (and related transportation — part of Column H) are addressed, consistent with the Court decisions and the Commission's General Statement of Policy. The Table set forth below shows proposed revisions to Table S-3 in light of the supplement. The format of Table S-3A is followed in order to show the separate impacts from reprocessing and waste management. Both the old and new impact values are included to facilitate review. Any final interim rule will revert back to the Table S-3 format.

"Waste management," as that term was used in the fuel cycle rule and is used in this notice of proposed rulemaking, refers to the handling of wastes from post-fission operations in the fuel cycle, or other operations from which wastes arise and are shipped to some storage or burial facility. In the fuel cycle rule wastes disposed of at the sites of their generation (e.g., tailings from mills) were included in the impacts from those operations (i.e., in the other appropriate columns of Table S-3A). These wastes are mentioned in the supplement in the description of the fuel cycle, but since these aspects of the original survey were upheld by the Court, they are not addressed here.

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A complete understanding of the management of nuclear wastes requires a discussion of the operations through which wastes pass from the place and time of their generation to their disposal. Therefore, the supplement discusses the operations at each plant in which the wastes are treated, stored, and prepared for shipment to offsite storage or disposal facilities. The supplement also deals with the transportation of these wastes.

In a reprocessing plant, the highly radioactive spent-fuel elements are chopped into short segments, the fuel is dissolved by strong acid, and the resultant solution is separated chemically to give (1) uranium in solution, (2) plutonium in solution, and (3) fission products and unwanted actinides in the waste stream. In this process, a number of other materials become contaminated and emerge as wastes of lesser radioactivity. All of these materials are made into a form suitable for shipment to the next step in the fuel cycle or to disposal. The impacts of all these processes are addressed in the supplement.

In the recently issued report "Final Generic Environmental Statement on the Use of Recycle Plutonium in Mixed Oxide Fuel in Light Water Cooled Reactors," NUREG-0002, (hereafter referred to as GESMO), five alternative fuel cycle options were evaluated, and three were reviewed in detail: no recycle, uranium-only recycle, and uranium and plutonium recycle. The fuel cycle rule, Table S-3, had as its base a modification of the uranium-only recycle process in which separated plutonium was stored for possible later use, rather than being recycled or treated as a waste stream as in GESMO. This supplement considers the no-recycle fuel option in addition to the uranium-only recycle option. For the latter, plutonium is treated as a waste. The uranium-plutonium recycle option is treated in detail in GESMO

and is beyond the scope of this proceeding. The individual entries in the revised Table which follows are maximized in that they are based on the uranium-only recycle process, or no-recycle, whichever produced the greater impacts.

In the supplement the model fuel-cycle facilities, in terms of capacities, waste generation rates, and types of waste produced, are drawn from GESMO, and the environmental impacts associated with reprocessing and waste management activities are normalized to a model reactor corresponding to that in WASH-1248.

The supplement represents a full and candid discussion of spent fuel reprocessing and waste management impacts, and is based on a thorough survey of the available data. Throughout the supplement there is frequent reference to the scholarly literature and technical reports. Indeed, over 175 reports and papers were cited and reviewed. All these references are publicly available.* In addition, copies of a petition for rulemaking, submitted by the Natural Resources Defense Council on August 10, 1976, relating to procedures and approach to the assessment of the environmental impacts of reprocessing and waste management, and public comments thereon, have been made available in the Commission's Public Document Room.

In general, the supplement indicates that the available data is adequate for a quantitative assessment of impacts from normal operations of all parts of the reprocessing and waste management system. Accidents were analyzed for most components of the complete system, but the bases for these analyses in the literature were varied, and all accident sequences could not be analyzed. Sample events are analyzed for all system components, and for one part (trans-

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*Those few which are not in commonly available literature have been made available in the Commission's Public Document Room.

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portation) data on accidents from normal commercial activities is quite extensive. One of the goals of GESMO was to assess the cumulative impacts of the five fuel cycle alternatives. In Chapter VIII of that document these cumulative impacts through the year 2000 were discussed and tabulated in detail, including detail in the format used in Table S-3A of WASH-1248. These adequately describe the cumulative impacts of reprocessing and waste management with regard to the present generation of light water nuclear power reactors now under review or soon to come under review for licenses.

In areas where information necessary for a complete quantitative assessment of environmental impacts is lacking (risks from sabotage, special risks from disposal of spent fuel or separated plutonium, and risks from failure in the long term of the geologic repository for high level waste) Federal programs are underway to resolve existing uncertainties.

With respect to risks from long term repository failure, representative studies have been done with varying degrees of depth and sophistication, but there are still uncertainties in areas such as the effect of waste presence on repository stability; the probabilities and consequences of various types of intrusive acts by humans; the availability of data to be used in modeling studies; the design and regulatory actions needed to minimize possibilities of repository failure; projection of future societal habits and demography, and, finally, the relative importance of the various potential initiating events. Research programs are underway which should resolve most of these uncertainties over the next few years.

Where data necessary for a complete quantitative assessment of impact is lacking, the Commission's expert judg-

ment must be brought to bear on the information available. Among the issues the Commission expects to be addressed in comments on the Supplement and this proposed interim rule and in future hearings is whether the judgments, and supporting reasons, set forth in the supplement regarding such situations are sound. Where contrary judgments are suggested, the bases for those judgments should also be provided. The supplement also includes a summary presentation of ongoing Federal programs directed at providing more complete information. While these programs are not expected to provide substantial new data for a year or more, new information that does develop through these programs or the Commission's continuing analyses in connection with this proceeding will be brought into the analysis.

The revised interim table is being proposed by the Commission as an interim substitute for the waste management and reprocessing values presently set forth in Table S-3A. After receipt and analysis of comments received in response to this notice, a final interim rule may be promulgated for use as a basis for LWR licensing. As the Commission's General Statement of Policy indicated, after promulgation of such a final interim rule, a public hearing will be held in order to facilitate effective public participation on the question whether the interim rule should be amended for future use and, if so, in what respect. The time, place, and format for the hearing will be set forth in a separate *Federal Register* notice. The interim rule would be used for LWR licensing only during the period of time required for completion of the public hearing and proceedings thereon. In order to reflect the interim character of the rule, any rule adopted will be made effective for no longer than an eighteen month period.

The Commission's present belief is that the supplemental survey can serve as an adequate foundation for such a rule.

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The supplement is based on a thorough survey of the available data on waste management and reprocessing impacts, and states to the extent now possible the uncertainties and risks associated with these impacts. While the court has required an acceptable substitute for the portions of Table S-3 which it found inadequately supported as the basis for the necessary environmental impact analyses, the obvious impacts of a lengthy cessation of licensing pending final and complete analysis of the questions at issue may be considered in passing on the interim licensing question. Cf. *Union of Concerned Scientists* v. *A.E.C.*, 499 F.2d 1069 (D.C. Cir. 1974) at 1081-1086. At the Commission's direction, a separate analysis of the environmental, social and economic impacts of the use of an interim rule for licensing of LWR's has been prepared, entitled "Impacts of Later Reversing A Decision to Adopt or Not to Adopt An Interim Rule Permitting Construction or Operation of Nuclear Power Plants," October 1976. Assuming that a final rule permitting construction or operation of LWR's to proceed is adopted, this study suggests that failure to promulgate an interim rule would result in substantial increases in economic, social, and environmental costs. Substantial costs would also be incurred should construction or operation of LWR's proceed under an interim rule, and the final rule (when factored into individual impact statements) require that ongoing construction or operation cease. Such a cessation of construction or operation would, of course, only occur in this context if the present analysis of reprocessing and waste management impact proves to be dramatically in error. The Commission's present judgment is that such an outcome is unlikely.

The Commission is aware of the several comments filed with it in response to its General Statement of Policy and to the August 10 NRDC petition for rulemaking in this mat-

ter. The procedural aspects of that Statement and petition, to the extent not addressed here, will be dealt with in a notice of hearing to be published shortly. Technical aspects of the comments, including NRDC's extensive presentation and the economic data supplied by electric utility groups, have been considered in developing both the supplement and the statement of impacts. Of course, the technical judgments in both documents remain open for further comment in connection with the proposed rule.

The staff found the technical aspects of the NRDC comments, in the main, to state important elements in the area of waste management, but many were outside the scope of the present study. For instance, the staff relied on analysis of available technology (as suggested by NRDC) and dealt with some special waste types (such as spent fuel and plutonium) suggested for consideration. To the extent that some of the suggestions for inclusion were beyond present technology or are not contemplated by any of those responsible for the management of wastes, they were judged not to contribute to a reasonable projection of impacts and were not included in the survey. And, in declining to consider such matters here, the Commission does not imply any judgment regarding the appropriateness of these questions for future inquiry in other proceedings.

This Notice of Proposed Rulemaking does not address several issues identified in the General Statement of Policy. These issues include the question whether the Commission, *sua sponte*, should initiate show cause proceedings against present holders of LWR construction permits, limited work authorizations, or operating licenses; whether circumstances revealed by the supplement warrant any change in the Commission's policy regarding show cause proceedings against present licensees initiated by others; and whether licenses may be issued in pending cases, and if so under

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what conditions, in advance of the adoption of an interim rule. Resolution of these questions, or some of them, may be affected by the action of the United States Court of Appeals for the District of Columbia last Friday, October 8. The court, in staying its mandate in the proceeding which led to issuance of the General Statement of Policy, indicated its view that the Commission could continue licensing activities "on condition that [the Commission] shall make any licenses granted between July 21, 1976 and such time when the mandate is issued subject to the outcome of the proceedings herein." The Commission anticipates resolving these questions, in light of the supplement and the court's recent action, in the very near future. In particular, parties to existing show cause proceedings are being invited to submit views regarding the possible suspension of those show cause proceedings to the Secretary of the Commission on or before October 22, 1976.

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Table 2.10

SUMMARY OF IMPACTS OF REPROCESSING AND WASTE MANAGEMENT PER RRY

(Columns F, G, and H of Table S-3A)

Natural Resource Use	F[d] Reprocessing (NUREG-0116)	F[d] Reprocessing (WASH-1248)	G[a] Waste Management (NUREG-0116)	G Waste Management (WASH-1248)	H[c] Transportation (NUREG-0116)	H Transportation (WASH-1248)	Fuel Cycle Totals[a,b] (NUREG-0116)	Fuel Cycle Totals[a,b] (WASH-1248)
Land (Acres)								
Temporarily Committed	32[h]	3.9	3.2	—	—	—	94	63
Undisturbed Area	28.5	3.7	2.9	—	—	—	73	45
Disturbed Area	3.5	0.2	0.28	—	—	—	22	18
Permanently Committed	0.12	0.03	2.6[e]	0.2	—	—	7.1	4.6
Overburden moved (millions of MT)	0.1	—	0.0015	—	—	—	2.8	2.7
Water (millions of gal.)								
Discharged to air	6.6	4.0	0.38	0.13	—	—	159	156
Discharged to water bodies	54.8	6.0	0.051	0.13	—	—	11,090	11,040
Discharged to ground	—	—	0.96	—	—	—	124	123
Total Water	61.4	10.0	1.4	0.26	—	—	11,373	11,319
Fossil Fuel								
Electrical energy (thousand MW-hr.)	4.0	0.45	0.62	.0077	—	—	321	317
Equivalent coal (thousand MT)	1.5	0.16	0.22	.003	0.016	—	117	115
Natural Gas (million scf)	28.6	—	3.3	—	—	—	124	92

[a] Maximized for either of the two cycles (U-only and no recycle).

[b] Including columns A-E of Table S-3A of WASH-1248.

[c] For wastes only.

[d] Differences between NUREG-0116 and WASH-1248 estimates of reprocessing impacts are attributable to the use of a new model plant for this Supplement.

[e] Disposal included here did not appear in WASH-1248.

[f] Not released to the environment.

[g] Major radionuclide releases in the Waste Management column are attributable to the disposal of spent fuel (no-recycle option) and the conservative assumption of complete release of gaseous nuclides in the geologic repository.

[h] The contributions to temporarily committed land are not prorated over 30 years, since the complete temporary impact accrues regardless of whether the plant services one reactor for one year or 57 reactors for 30 years.

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Table 2.10 (Continued)

Natural Resource Use	F[d] Reprocessing (NUREG-0116)	F[d] Reprocessing (WASH-1248)	G[e] Waste Management (NUREG-0116)	G Waste Management (WASH-1248)	H[c] Transportation (NUREG-0116)	H Transportation (WASH-1248)	Fuel Cycle Totals[b] (NUREG-0116)	Fuel Cycle Totals[b] (WASH-1248)
Effluents								
Chemical (MT)								
Gases (MT)								
SO x	5.4	6.2	0.030	—	0.045	—	4,400	4,400
NO x	21.9	7.1	0.031	—	0.62	2.6	1,190	1,177
Hydrocarbons	0.5	0.02	0.02	—	0.062	—	14	13.5
CO	0.5	0.04	0.007	—	0.38	—	29.6	28.7
Particulates	0.6	1.6	0.02	—	0.022	—	1,154	1,156
Other Gases								
F^-	0.05	0.11	—	—	—	—	0.67	0.72
HCl	6E−4	—	0.013	—	—	—	0.14	—
Liquids								
$SO_4^=$	<0.02	0.4	—	—	—	—	9.9	10.3
NO_3^-	—	0.9	—	—	—	—	25.8	26.7
Fluoride	—	—	—	—	—	—	12.9	12.9
Ca^{++}	—	—	—	—	—	—	5.4	5.4
Cl^-	0.09	0.2	—	—	—	—	8.5	8.6
Na^+	<0.02	5.3	—	—	—	—	12.1	16.9
NH_3	—	—	—	—	—	—	10.0	11.5
Tailings Solutions (thousands)	—	—	—	—	—	—	240	240
Fe	—	—	—	—	—	—	0.4	0.4

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Table 2.10 (Continued)

Natural Resource Use	F[d] Reprocessing (NUREG-0116)	F[d] Reprocessing (WASH-1248)	G[a] Waste Management (NUREG-0116)	G Waste Management (WASH-1248)	H[c] Transportation (NUREG-0116)	H Transportation (WASH-1248)	Fuel Cycle Totals[b] (NUREG-0116)	Fuel Cycle Totals[b] (WASH-1248)
Effluents (Cont'd)								
Radiological (curies)								
Gases (including entrainment)								
Rn-222	—	—	0.0071	—	—	—	74.5	74.5
Ra-226	—	—	5.3E−7	—	—	—	0.02	0.02
Th-230	—	—	5.3E−7	—	—	—	0.02	0.02
Uranium	0.000039	—	7.9E−6	—	—	—	0.034	0.032
Tritium (thousands)	18.1	16.7	14g	—	—	—	18.1	16.7
Kr-85 (thousands)	400	350	290g	—	—	—	400	350
I-129	0.03	0.0024	1.3g	—	—	—	1.3	0.0024
I-131	0.83	0.024	—	—	—	—	0.83	0.024
Fission Products	0.18	1.0	0.003	—	—	—	0.021	1.0
Transuranics	0.023	0.004	0.0014	—	—	—	0.024	0.004
C-14	24	—	19g	—	—	—	24	—
Liquids								
Uranium & Daughters	—	—	5.4E−6	—	—	—	2.1	2.1
Fission & Activation Products	—	—	5.9E−6	—	—	—	5.9E−6	—
Ra-226	—	—	—	—	—	—	0.0034	0.0034
Th-230	—	—	—	—	—	—	0.0015	0.0015
Th-234	—	—	—	—	—	—	0.01	0.01
Tritium (thousands)	—	2.5	—	—	—	—	—	2.5
Ru-106	—	0.15	—	—	—	—	—	0.15
Solids (buried onsite)[f]								
Other than high level (shallow)	0.52	—	4,700	—	—	—	5,300	601
TRU & HLW (deep)	—	—	1.1E+7	—	—	—	1.1E+7	—
Thermal (billions of Btu)	75.5	61	88	1.0	0.014	0.03	3,462	3,360

Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, NEPA, the Energy Reorganization Act of 1974, as amended, and sections 552 and 553 of Title 5 of the United States Code, notice is hereby given that adoption of the substance of the following Table is contemplated as a revision to Table S-3 of 10 CFR Part 51. All interested persons who desire to submit written comments or suggestions for consideration in connection with the proposed amendments, or to submit comments on the underlying supplement to Wash-1248 or impact analysis, should send them to the Secretary of the Commission, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Section, by (45 days after publication in the FR). Copies of the supplement and impact analysis may be examined at the Commission's Public Document Room at 1717 H Street, Washington, D. C. and at the Commission's local Public Document Rooms. Copies of the comments received in response to this notice will be placed in the Commission's Public Document Room in Washington, as received. Single copies of the supplement and impact analysis may be obtained without charge, to the extent of supply, by writing to the Division of Document Control, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555. (Sec. 161, Pub. Law. 83-703, as amended, 68 Stat. 948, as amended [42 U.S.C. 2201]; Sec. 102, Pub. Law. 91-190, 83 Stat. 853 [42 U.S.C. 4332], Sec. 201, Pub. Law. 93-438, as amended, 88 Stat. 1242, 89 Stat. 415, [42 U.S.C. 5841]).

FOR THE
NUCLEAR REGULATORY COMMISSION

SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.
this 13th day of October, 1976.

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U. S. NUCLEAR REGULATORY COMMISSION

[Docket RM-50-3]

ENVIRONMENTAL EFFECTS OF THE URANIUM FUEL CYCLE

Supplemental General Statement of Policy

In a notice of proposed rule making dated October 13, 1976 and published in the FEDERAL REGISTER on October 18, 1976 (41 F.R. 45849) entitled "Uranium Fuel Cycle Impacts from Spent Fuel Reprocessing and Radioactive Waste Management", the Commission solicited comments on a proposed revision to Table S-3 of 10 CFR Part 51 and a related survey ("Environmental Survey of the Reprocessing and Waste Management Portions of the LWR Fuel Cycle" NUREG-0116-Supplement 1 to WASH-1248) and impact analysis ("Impacts of Later Reversing a Decision to Adopt or Not to Adopt an Interim Rule Permitting Construction or Operation of Nuclear Power Plants", October 1976). The October 13, 1976 notice of proposed rule making was an action forecast by a General Statement of Policy which the Commission issued (41 F.R. 34707, August 16, 1976) in response to two recent decisions (July 21, 1976) by the United States Court of Appeals for the District of Columbia Circuit (*Natural Resources Defense Council* v. *NRC* and *Aeschliman* v. *NRC*).

While the October 13, 1976 notice addressed a number of issues raised in the General Statement of Policy, certain questions were explicitly deferred with the notation that the Commission anticipated resolving these questions in the very near future. The deferred questions were whether the Commission, *sua sponte,* should initiate show cause proceedings against present holders of construction permits, limited work authorizations, or operating licenses for light water reactors; whether circumstances revealed by the sup-

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plement warrant any change in the Commission's policy regarding show cause proceedings against present licensees initiated by others; and whether licenses may be issued in pending cases, and if so under what conditions, in advance of the adoption of an interim rule. This Supplemental Statement of Policy addresses two of those questions.

Two factors appear to the Commission to bear decisively on each of these questions. First, the United States Court of Appeals for the District of Columbia Circuit on October 8, 1976 has stayed its mandate in the proceedings which gave rise to the issuance of the General Statement of Policy. In staying its mandate the court indicated that the Commission could continue licensing activities "on condition that (the Commission) shall make any licenses granted between July 21, 1976 and such time when the mandate is issued subject to the outcome of the proceedings herein." Second, the breadth and quality of the present analysis of reprocessing and waste management impacts set forth in the supplemental survey lead the Commission to believe it improbable that the assessment that such impacts are slight will prove to be dramatically in error.

In light of the stay of the court's mandate, the quality of the present analysis of reprocessing and waste management impacts set forth in the supplemental survey, and the relatively short period of time anticipated before the interim rule can be adopted,* the Commission presently perceives no compelling reason, on either legal or policy grounds, for initiating *sua sponte* show cause proceedings against present holders of light water reactor construction permits, limited work authorizations, or operating licenses. Rather, the Commission's present belief is that it would not be justified in instituting new proceedings against the holders

*The Commission believes that a decision whether to adopt an interim rule can be made during January 1977.

of such permits, authorizations and licenses on Table S-3 grounds pending the outcome of the current rulemaking. With respect to show cause-type proceedings initiated by others pursuant to the August 16, 1976 General Statement of Policy, which are presently under way, the Memoranda and Orders we are issuing today in those proceedings have the effect of suspending them pending anticipated adoption of an interim rule.

On the question of issuing licenses in pending cases, five principal considerations are relevant and manifest. First, it would be inappropriate for the Commission to continue to license facilities on the basis of the existing reprocessing and waste storage values of Table S-3 without taking account of the improved and expanded analysis now at hand. Second, that improved and expanded analysis is not now reflected in any currently applicable Commission rule. Third, while continued licensing solely on the basis of the present Table S-3 values for reprocessing and waste management would be inappropriate, it is now clear that the court envisions further licensing; and the information now available to the Commission indicates that a halt in licensing activity is more likely to have a severe social and environmental impact than continued licensing on the conditional basis the court suggests, taking some account of the newly developed analysis. Fourth, there is no bar to the use of the revised chemical reprocessing and waste storage values of the S-3 Table in pending proceedings — prior to the adoption of an interim rule — on the basis of individual NEPA analyses of reprocessing and waste management impacts. In connection with this last consideration, however, there is the significant practical constraint raised by the needless duplication which proceeding both by rulemaking and in individual licensing hearings would entail and the overall delay that would result. The Commission is sharply aware of the advantages of avoiding such duplication and attendant strain on the resources of parties by

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focusing resolution of issues which may be raised regarding the survey in a single proceeding. Finally, the Commission anticipates that the interim rule as promulgated will closely resemble the proposed rule published on October 13, and like that proposed rule, will not produce results significantly different from those obtained under the current rule.

With these considerations in mind, the Commission has concluded that licensing may resume on a conditional basis using the existing Table S-3 if, but only if, the revised values are examined to determine whether, if those values were used, the result would tilt the cost-benefit balance against the issuance of the license. Under this approach, the accuracy of the revised values will not be an issue in the licensing proceeding. While this approach may leave the validity of licenses in some doubt, it has the advantage of lessening duplication of the resources of the parties to the proceedings. Most importantly it responds to the suggestion in the court's order of October 8, 1976 that continued licensing under the existing rule on a conditional basis would be appropriate, without ignoring the newly developed values. The additional analysis called for may also avoid the need for further proceedings on these licenses, should rulemaking eventuate in adoption of these or comparable values.

In sum, the Commission has concluded that subject to the limitations hereinafter expressed, full-power operating licenses, construction permits and limited work authorizations may be issued in pending cases in advance of the adoption of an interim rule on the basis of the currently effective chemical reprocessing and waste storage values of Table S-3. The Commission directs that such licenses may be issued only if further, specific analysis is performed to determine whether, if the revised chemical reprocessing and waste storage values set forth in the Commission's notice of

proposed rulemaking of October 18, 1976 were used, the result would tilt the cost-benefit balance against the issuance of the license. If it appears that the balance would be so tilted, then the proceeding will be suspended, with respect to chemical reprocessing and waste storage issues, pending further action by the Commission. Under this approach the accuracy of the revised values is not to be an issue in the proceeding, but the determination whether the cost-benefit balance would be tilted, if the revised values were used, is fully at issue in the proceeding. Further, any full-power operation license, construction permit or limited work authorization issued under this approach must be conditioned in accordance with the court's order (staying its mandate) dated October 8, 1976.

To the extent that this Supplemental General Statement of Policy differs from the Commission's General Statement of Policy of August 16, 1976, the latter is modified accordingly.*

FOR THE
NUCLEAR REGULATORY COMMISSION

SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.
this 5th day of November, 1976

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*In seeking a stay of mandate from the court of appeals, the Commission informed the court of its General Statement of Policy and the intention there stated to make further licensing actions depend on the basis of a further request to the court, to be made within a few weeks of issuance of the revised survey. In the Commission's view, the specific reference to continued licensing in the court's order moots this proposed action. The Commission also notes that the court granted all petitions for stay, not merely its own; the other petitions filed were not conditioned as was the Commission's.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

EDWARD A. MASON, *Acting Chairman*
VICTOR GILINSKY
RICHARD T. KENNEDY

IN THE MATTER OF

VERMONT YANKEE NUCLEAR POWER CORPORATION (Vermont Yankee Nuclear Power Station)	Docket No. 50-271
PUBLIC SERVICE ELECTRIC & GAS COMPANY (Salem Nuclear Generating Station, Units 1 & 2)	Docket Nos. 50-272 50-311
PHILADELPHIA ELECTRIC COMPANY (Peach Bottom Atomic Power Station, Units 2 & 3)	Docket Nos. 50-277 50-278
METROPOLITAN EDISON COMPANY, ET AL. (Three Mile Island Nuclear Station, Units 1 & 2)	Docket Nos. 50-289 50-320
DUQUESNE LIGHT COMPANY, ET AL. (Beaver Valley Power Station, Units 1 & 2)	Docket Nos. 50-334 50-412
PHILADELPHIA ELECTRIC COMPANY (Limerick Generating Station, Units 1 & 2)	Docket Nos. 50-352 50-353
PUBLIC SERVICE ELECTRIC AND GAS COMPANY AND ATLANTIC CITY ELECTRIC COMPANY (Hope Creek Generating Station, Units 1 & 2)	Docket Nos. 50-354 50-355
PENNSYLVANIA POWER AND LIGHT COMPANY (Susquehanna Steam Electric Station, Units 1 & 2)	Docket Nos. 50-387 50-386
UNION ELECTRIC COMPANY (Callaway Plant, Units 1 & 2)	Docket Nos. STN-50-438 STN-50-486

MEMORANDUM AND ORDER

On September 27, 1976, Vermont Yankee Nuclear Power Corporation submitted a document entitled "Motion of Licensee for Recall of Orders in Light of Changed Circumstances". Although the caption of that document indicated

that it was only filed in the proceeding directly involving the Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), Docket No. 50-271, the requested relief would apply to all of the proceedings listed above.[1] Since that was so, and in view of events occurring subsequent to Vermont Yankee's motion, on October 13, 1976, we asked all parties to those proceedings to respond to Vermont Yankee's motion for "the suspension of all pending show cause proceedings on fuel cycle grounds".

The questions raised by Vermont Yankee's motion form a part of the complex set of issues presented to this Commission by the decision in *Natural Resources Defense Council v. U. S. Nuclear Regulatory Commission,* F.2d , Nos. 74-1385, 74-1586 (D.C. Cir. July 21, 1976) (the "fuel cycle decision"). Many of those issues and the Commission's response to them are detailed in our Memorandum and Order issued today in *Public Service Company of New Hampshire, et al.* (Seabrook Station, Units 1 and 2). Therein we explain our reasons for suspending the proceedings seeking suspension of the Seabrook construction permit on fuel cycle grounds. That decision is founded upon our judgment that an interim rule on the environmental effect of the uranium fuel cycle is not likely to be substantially different from the rule now in place, and would be in place in about three months. In such circumstances, suspension of the Seabrook Construction permit

[1] Formally, Vermont Yankee did not make motions in those proceedings but moved the Commission to recall as much of its General Statement of Policy, 41 *Fed. Reg.* 34707 (August 16, 1976) as authorized any subordinate element of the Commission to reconsider a permit or license on fuel cycle grounds. As a matter of procedure, we note that Vermont Yankee, which is not a party to any proceeding other than its own, normally could not make any motion in a proceeding to which it is not a party. However, in view of the conclusions we reach, we can suspend further proceedings in the other cases on our own motion.

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pending review by the Appeal Board appeared unwarranted. Since our Seabrook decision was not based on the specific facts of the Seabrook situation but depended upon our generic assessment of the issues involved, it is equally applicable to each of the above-styled proceedings.

Accordingly we find suspension proceedings unwarranted in these cases, in many of which licenses have issued following final agency action, and in which the cost/benefit balance as already struck favors the reactor. There is not a sufficient likelihood that the balance would be tipped to warrant the substantial costs that would be imposed by suspending construction or operation for the brief period that appears necessary to resolve these issues.

Our conclusion in Seabrook is also based on our analysis of the stay of mandate of the fuel cycle decision. In the Commission's motion for a stay of mandate it indicated that it would use the General Statement of Policy as a basis for implementing the fuel cycle decision subject to possible changed procedures in light of the revised survey, and to the possibility that it might seek a further stay of mandate based on the results of the survey. *See, Seabrook,* slip opinion at 22-23 and n.11. It also indicated to the court that suspension proceedings in Vermont Yankee had been undertaken. The stay motions of Vermont Yankee and the intervenor utilities, however, were based on entirely different considerations and sought specifically to prevent shutdown of the Vermont Yankee facility and to halt all suspension proceedings based on fuel cycle grounds. *Seabrook,* slip opinion at 23-24. As explained more fully in the Seabrook opinion, we believe that the October 8 order granting their motions introduces new circumstances of which the Commission must take account; it frees us of any constraint which may have been introduced by our representation that suspension proceedings had been undertaken

for the Vermont Yankee facility. As we discuss in the Seabrook opinion at pp. 24-28, we believe that the most logical interpretation of the effect of the stay of mandate is that it postpones any mandatory effect of the fuel cycle decision, subject to a condition of any new licenses, until the possibility of a successful appeal has been resolved. The Commission remains free, if later-developed facts so warrant, to suspend licenses or take any other action required in the exercise of its ordinary regulatory authority.[2] Consequently, we do not believe that the fuel cycle decision or the stay of the mandate in that decision disables us from suspending these show cause proceedings.

For the reasons stated above, the pending proceedings in these cases are suspended.[3]

It is so ORDERED.

By the Commission.

SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.
this 5th day of November 1976.

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[2] Admittedly, the meaning of the court's order is subject to different interpretations. We are transmiting a copy of this decision setting forth our assessment of the meaning of the order to the court for its information.

[3] This Memorandum and Order does not apply to the reopened proceeding involving Consumers Power Company (Midland Plant, Units 1 and 2), Docket Nos. 50-329, 50-330, which is dealt with in a separate order. We note that ALAB-352, the Appeal Board decision in the Union Electric Company (Callaway Plant, Units 1 and 2), Docket Nos. STN 50-483, STN 50-486 proceeding, is presently within the twenty-day review period prescribed by 10 CFR § 2.786(a). Without intimating any opinion on the merits of the issues decided in ALAB-352, we believe that proceeding should also be suspended.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

MARCUS A. ROWDEN, *Chairman*
EDWARD A. MASON
VICTOR GILINSKY
RICHARD T. KENNEDY

IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, ET. AL. (Seabrook Station, Units 1 and 2)	DOCKET NOS. 50-443 50-444

Appearances

Thomas G. Dignan, Jr. and *John A. Ritsher,* for the Applicant, Public Service Company of New Hampshire

Martin G. Malsch and *Michael Grainey,* for the Regulatory Staff

Anthony Z. Roisman and *David Fleischaker,* for the Intervenor, New England Coalition on Nuclear Pollution

Ellyn R. Weiss, for the Commonwealth of Massachusetts

MEMORANDUM AND ORDER

Introduction and Summary

On September 30, 1976, the Atomic Safety and Licensing Appeal Board, by a divided vote, granted a motion by the intervenor New England Coalition on Nuclear Pollution to suspend the effectiveness of the outstanding construction permits in this proceeding on the basis of the Commission's

General Statement of Policy of August 13, 1976, concerning the environmental effects of the uranium fuel cycle. 41 Fed. Reg. 34707. On October 5, 1976, we decided to review ALAB-349, called for briefs from the parties, and set the matter for oral argument.[1] The effect of our order was to stay the Appeal Board's action. 10 CFR 2.786(a). In taking review we indicated a special interest in the impact of a forthcoming staff study called for in the General Statement of Policy. Thereafter, we asked the parties to address at oral argument several additional developments bearing on whether we should modify the Appeal Board's decision. For the reasons set forth hereafter, we hold that, in the light of these developments, this proceeding is suspended and construction of the Seabrook facility may be allowed to continue, pending anticipated adoption of an interim rule concerning the environmental effects of the fuel cycle and also subject to the outcome of two other proceedings — the appeals pending before the Appeal Board on the merits of the initial decision authorizing their issuance, and the Ap-

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[1] On October 13, 1976, counsel for the intervenor NECNP wrote a letter to the Commission's General Counsel stating that he wished information "with respect to the meeting on Saturday, October 2, 1976, between members of the Commission and representatives of the Public Service Company of New Hampshire." The Commission's General Counsel brought the inquiry to the personal attention of each Commissioner individually, and each responded that he had participated in no such meeting. The General Counsel communicated these responses to counsel for NECNP who declined to provide any further information. The Commission subsequently met to discuss the matter and unanimously agreed that, in light of the obvious inappropriateness of such a meeting at that time, any Commissioner who had taken part in such a meeting would be disqualified from further proceedings in this case. At the beginning of the oral argument on October 26, 1976, these developments were summarized by the Chairman and counsel for NECNP was asked whether he wished to provide any further information or say anything else regarding the alleged meeting. The Chairman stated

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peal Board's pending reconsideration of an application for a stay pending appeal.

As suggested by our opening paragraph, the background and procedural history of this matter are quite complex. Various aspects of that history have been set forth in the initial decision of the Atomic Safety and Licensing Board authorizing issuance of the construction permits (NRCI-76/6 857), the Appeal Board's decision in ALAB-338 denying an application for stay pending appeal (NRCI 76/7 10), and the Appeal Board's decision presently under review, ALAB-349 (NRCI 76/9—). It is unnecessary to review all of that history here. Rather, we will summarize the facts relevant to the basic issue presented — whether the Seabrook construction permits should be suspended pending adoption of an interim rule governing assessment of the incremental environmental impacts of the uranium fuel

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that the matter "must be laid to rest, and laid to rest on the record of this proceeding." Counsel for NECNP replied that "I have nothing additional to add to what I have already said." Tr. pp. 5-7. Correspondence relating to this matter was read into the record. Tr. pp. 7-10. No such meeting occurred.

We recognize that there are strongly held and conflicting views on many of the issues that fall within our mandate. For that reason, all participants in our proceedings should seek to promote the process of rational decisionmaking. We feel constrained in this context to take note of objectionable portions of the reply submission of counsel for NECNP in this proceeding. For example, counsel for NECNP tells us that "Each Commissioner must ask himself to what master he is loyal. There is no integrity in loyalty to a false master as Messrs. Haldeman, Erhlichman, Mitchell, et al., learned so well." He further states that "Some day, some time, each Commissioner must face up to the reality that he has sworn on oath to regulate nuclear power. Today is that day." NECNP Response to Briefs of Applicants and NRC Staff, p. 4. In our judgment, innuendos of this kind cross the line between vigorous advocacy and impropriety.

cycle attributable to an individual light water reactor, like Seabrook, in the NEPA cost/benefit analysis for such a reactor.

Factual and Procedural Background

The applicant Public Service Company of New Hampshire proposes to build a two-unit nuclear electric generating station in the vicinity of Seabrook, New Hampshire. Following a contested licensing proceeding, in which the environmental impacts associated with the uranium fuel cycle were duly factored into the NEPA cost/benefit analysis for the reactor in accordance with 10 CFR 51.20(e), a divided Atomic Safety and Licensing Board authorized issuance of construction permits on June 29, 1976. On July 7, 1976, construction permits were issued by the Director of Nuclear Reactor Regulation. Construction commenced shortly thereafter and has been proceeding since that time. Appeals are presently pending on the merits of the Licensing Board decision before the Atomic Safety and Licensing Appeal Board, including a challenge to that aspect of the Commission's rule governing the assessment of waste disposal impacts associated with the fuel cycle. Brief discussion of the background of that rule is necessary to put this matter in perspective.

Prior to 1974, the incremental environmental impacts associated with the uranium fuel cycle were not factored into cost/benefit analyses, for individual light water reactors. Such impacts were deemed to be too indirect and remote for consideration in the context of licensing an individual reactor, and properly postponed for consideration in conjunction with the planned licensing of waste management and reprocessing facilities. See *Vermont Yankee Nuclear Power Corp.*, 4 AEC 930 (1972). In April 1974, the AEC

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concluded a rulemaking proceeding resulting in the adoption of a table of numerical values which quantify the environmental impacts of the uranium fuel cycle attributable to an individual reactor. This table, denominated Table S-3, is now incorporated in our rules implementing NEPA. 10 CFR 51.20(e), 51.23(a). As reflected in the statement of considerations adopting the present rule, these environmental impacts were found to be very small. 39 Fed. Reg. 14188-91. The rules accordingly provided that the table's numerical values were to be included in applicant's environmental reports and in staff environmental impact statements for individual reactors, but that no further discussion of fuel cycle impacts was to be required. The validity of the new rule was challenged, both in the context of individual reactor licensings, and by an appeal from the AEC's adoption of the rule itself.

On July 21, 1976, two weeks after the construction permits were issued in this case, the United States Court of Appeals for the District of Columbia Circuit rendered its decision on these challenges in *Natural Resources Defense Council* v. *NRC,* Nos. 74-1385 and 74-1586 (hereafter referred to as the "fuel cycle decision"). The court found that, regarding most phases of the uranium fuel cycle, Table S-3 rested on an "adequate, even admirable" basis. Slip opinion at 24. However, the court held that the rule embodying Table S-3 was inadequately supported by the rulemaking record insofar as it treated the effects of reprocessing of spent fuel and radioactive waste. The court further held that NEPA requires analysis of such reprocessing and waste issues, either through rulemaking or in individual licensing proceedings, as a prerequisite to Commission licensing of a nuclear power plant. A majority of the court also indicated that, should the Commission choose to revise its rule, it should do so by procedures more demand-

ing than the notice-and-comment procedures normally required for informal rulemaking by the Administrative Procedure Act.

On August 13, 1976, the Commission issued a General Statement of Policy in response to the court's decision, entitled "Environmental Effects of the Uranium Fuel Cycle." The General Statement of Policy was intended to spell out the Commission's reading of the court decision, to indicate its intended courses of action by way of implementation and possible appeal of the decision, and to provide guidance to licensing and appeal boards and to the regulatory staff during the implementation period. Among other things, the Commission directed the regulatory staff to "review the existing literature thoroughly and to produce on an expedited basis a revised and adequately documented environmental survey on the probable contribution to the environmental costs of licensing a nuclear power reactor that is attributable to the reprocessing and waste management stages of the uranium fuel cycle." The Commission expressed its intention to reopen the rulemaking proceeding on the environmental effects of the uranium fuel cycle for the limited purposes of (1) supplementing the record of the reprocessing and waste management issues; and (2) determining whether or not, on the basis of the supplemented record, Table S-3 should be amended. In addition, the staff was directed to prepare an evaluation of the environmental impact of using a possible interim rule as a basis for licensing until a final rule is in place, and an assessment of the impact of a suspension of further licensing during that time period.

The Commission stated its expectation that, on the basis of notice-and-comment procedures, an interim rule might be promulgated as early as December 1976, providing a basis for further licensing at that time. In the interim,

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however, the Commission concluded that "no new full-power operating license, construction permit or limited work authorization should be issued." That conclusion was "based on recognition that the grant of each of those authorizations, permits or licenses is premised upon the completion of an adequate environmental impact statement, and that under the court's decision, absent an acceptable substitute for those portions of Table S-3 which the court had found inadequately supported, the basis for a complete environmental impact statement will not be in place." Thus, the Commission made a generic determination that new operating licenses and construction permits, with limited exceptions, could not issue pending adoption of an interim rule or some other resolution of the issues raised by the court's opinion.

The Commission's General Statement of Policy took a different approach with respect to already-issued and outstanding operating licenses and construction permits applicable to operating reactors and to situations, like Seabrook, where construction was already underway. With regard to such licenses and permits, the Commission adopted a case-by-case approach, saying that:

> questions of modification or suspension should be resolved in formal proceedings in light of the facts and the applicable law. Since we have decided that reprocessing and waste management issues should be treated generically by rulemaking rather than on a case-by-case basis, the initial question on remand of the *Vermont Yankee* and *Midland* orders [cases involving an outstanding operating license and construction permit, respectively] will be whether the licenses should be continued, modified, or suspended until an interim rule has been made effective. In resolving this question, the Commission intends to assign the matter to licensing boards with instructions to call for briefs from the parties followed by evidentiary hearings if necessary. The same question would arise

on a request for a show cause order seeking the suspension or modification on fuel cycle rule grounds of any other nuclear power plant license.

It is the Commission's understanding that resolution of this question turns on equitable factors well established in prior practice and case law. Such factors include whether it is likely that significant adverse impact will occur until a new interim fuel cycle rule is in place; whether reasonable alternatives will be foreclosed by continued construction or operation; the effect of delay; and the possibility that the cost/benefit balance will be tilted through increased investment.

On August 18, 1976, the intervenor NECNP filed the subject motion before the Appeal Board seeking suspension of the Seabrook construction permits on the basis of the General Statement of Policy. Following briefing and oral argument, a divided Appeal Board rendered ALAB-349 on September 30, 1976, granting the NECNP motion and ordering suspension of the Seabrook construction permits, but staying the effect of its decision for eight days to maintain the *status quo* until the Commission had an opportunity to decide whether to review the matter. The majority determined that under the particular facts and circumstances of that case, and applying its understanding of the factors specified in the Commission's General Statement of Policy, a cessation of construction was warranted pending further resolution of the fuel cycle issues raised by the court of appeals decision. The majority stressed both its conclusion that the increased investment that would take place before adoption of an interim rule might "tilt" a subsequent NEPA cost/benefit balance toward continued construction of Seabrook, and its inability either to fix a limit on the time adoption of an interim rule might take or to guess at the nature of any rule that might be adopted.

The dissenting member of the Board reasoned, first, that it was reasonable to expect that an interim rule would be

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in place in a six-month period. Adoption of that timing frame of reference altered his view of the environmental impacts to be anticipated by denial of the suspension motion and also the costs that the applicant was likely to incur during that period. As a result of that analysis, he concluded that application of the factors listed in the General Statement of Policy to the record in this case could not justify suspension of the Seabrook permits.

On October 5, 1976, we decided to review the Appeal Board's ALAB-349 decision. Knowing that the revised fuel cycle survey would be publicly available shortly and that it might well have a bearing on our disposition of ALAB-349, we asked the parties to address its relevance in their submissions. In order to preserve the status quo and as contemplated by 10 CFR 2.786(a), we continued in effect the Appeal Board's temporary stay of its decision. Recognizing the need for expeditious treatment, however, we set an expedited briefing schedule and committed ourselves to a prompt decision following oral argument.[2]

On October 8, 1976, the Court of Appeals for the District of Columbia Circuit granted three pending stay motions filed with reference to its fuel cycle decision. The stay of mandate was granted on the condition that the Commission would "make any licenses granted between July 21, 1976

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[2] Intervenor NECNP sought summary reversal in the Court of Appeals for the First Circuit of our October 5 order, alleging, among other things, that we had violated 10 CFR 2.786 in not announcing reasons for our decision to review. As we recently stated in *United States Energy Research and Development Administration* (Clinch River Breeder Reactor Plant), NRCI 76/8 67, 75, the rule does not require any statement of reasons in an order merely announcing a decision to undertake review. Obviously this is an important case of first impression and therefore an appropriate case for Commission review. NECNP's motion for summary reversal is pending before the First Circuit, styled *New England Coalition on Nuclear Pollution* v. *NRC*, No. 76-1469.

[the date of the decision] and such time when the mandate is issued subject to the outcome of the proceedings herein." The court's mandate will not issue before the Supreme Court acts on pending petitions for certiorari and, if certiorari is granted, the decision invalidating portions of Table S-3 may be reversed.

Also on October 8, 1976, the Court of Appeals for the First Circuit, in which an application for a stay of the Seabrook construction permits pending appeal is pending invited our Appeal Board to reconsider an application to it for a stay based largely upon alleged environmental impacts to be anticipated from continued construction of Seabrook. The Appeal Board is presently entertaining a motion for reconsideration addressed to these matters.

On October 13, 1976, the revised fuel cycle survey, entitled "Environmental Survey of the Reprocessing and Waste Management Portions of the LWR Fuel Cycle," NUREG-0116, was made available for public comment. At the same time, the Commission issued a notice of proposed rulemaking, proposing for adoption a revised table as an interim substitute for the waste management and reprocessing values presently set forth in Table S-3. We expressed our present belief that the revised survey can "serve as an adequate foundation" for an interim rule and our judgment that the survey's analysis of reprocessing and waste management impacts would not prove to be "dramatically in error." We believe that an effective interim rule can be in place in January 1977.

There was then pending before the Commission a motion by the Vermont Yankee Corporation seeking recall of the Commission's directive, in its General Statement of Policy, establishing a hearing board to consider suspension of the Vermont Yankee license and authorizing the convening of similar boards on petition in other cases, until such time as

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the mandate might issue. By memorandum of October 13, 1976, from the Secretary, the parties in all pending suspension proceedings, including this proceeding, were referred to these developments and informed that—

> In light of all these circumstances, and in particular the court of appeals' action and the indications that adoption of an interim rule on a timely basis will be feasible, the Commission is considering the suspension of all pending show cause proceedings on fuel cycle issues, as moved by the Vermont Yankee Corporation.

Responses to the Vermont Yankee motion were solicited and several such responses were received.

These developments were called to the attention of the parties in this proceeding by a memorandum from the Secretary on October 20, 1976, in order to focus presentations at oral argument.[28] For the reasons to which we now turn, we believe that these developments amply warrant us in suspending this show cause proceeding.

The Revised Survey and Proposed Interim Rule

For purposes of our review, several premises of the Appeal Board majority's decision have now become critical. Perhaps most importantly, the revised survey of the environmental effects of the fuel cycle called for by the General Statement of Policy was not available when ALAB-349 was rendered. The Appeal Board expressly called attention to this fact and noted that it was not in a position to speculate what the revised survey might disclose. That

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[28] That memorandum asked the parties to be prepared to address at oral argument, among other issues:

> What relevance have the October 8 Court of Appeals decisions, the environmental survey, the notice of proposed rulemaking, and the staff impact statement to the discussion of license suspension in the General Statement of Policy on August 13, 1976?

being so, it was also not in a position to speculate when or even whether a rule similar to Table S-3 might be adopted.[3] In addition, the Board majority noted that the cost/benefit balance in the Seabrook case appeared to be relatively close. One member of the licensing board had dissented on this issue. Not having reached the merits of the appeals, the Appeal Board was not in a position to decide that issue. It did express the view, however, that Seabrook might be a case where the impacts of the fuel cycle might make a crucial difference in the cost-benefit balance, should the revised survey and/or the reopened rulemaking record show the values contained in present Table S-3 to be seriously in error. Slip. op. pp. 54-55. Furthermore, at the time the Appeal Board's decision was rendered, the court of appeals had not ruled on stay of mandate motions pending before it in the fuel cycle case. Accordingly, the Appeal Board majority was not in a position to take into account the terms of the stay order later issued by the court on October 8, 1976. In sum, the factual and legal universe with reference to which the Appeal Board majority decided ALAB-

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[3] In this regard, the Board stated that:

> To be sure, the policy statement does hold out the possibility that an interim rule might be promulgated as early as this December. It makes it quite plain, however, that the issuance of such a rule (utilizing notice and comment rulemaking procedures) would depend, *inter alia*, upon the revised environmental survey providing sufficient justification for following that path. On this score, the Commission eschewed a prejudgment of either (1) the conclusions which will be reached in the revised survey; or (2) the likelihood that, upon analysis of its content, the survey will be found to supply an adequate foundation for putting forth an interim rule months — and perhaps a year or more — before a sufficient record has been developed to permit the adoption of a final rule.
>
> It would be inappropriate for us to do otherwise.

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349 was markedly different from the universe in which we review that decision.

As we view it, of central importance in our disposition of this matter is the issuance of the revised environmental survey called for by the General Statement of Policy, its preliminary review by the Commission, and our resulting proposal of an interim fuel cycle rule. In ALAB-349, the majority summarized its reading of the policy announced by the General Statement for suspension of licenses, saying (slip opinion at 25-26):

> In short, adjudicatory boards must consider suspension motions arising under the policy statement *with due regard for the presently uncertain duration and outcome of the Commission's reevaluation of the reprocessing and waste disposal issues.* It need be added in this connection only that any judgment reached within that framework in a particular case will be subject to alteration once the uncertainties are removed. . . . Any suspension of an existing license which might be decreed at this juncture would likewise have no certain permanent effect; it too could be terminated at any time if warranted by a change in circumstances. (emphasis added)

While the uncertainties of duration and outcome the majority referred to are not yet totally removed — uncertainties that were pivotal to the majority's result — they have been so greatly lessened as to warrant vacation of the Board's suspension order.

In this respect, we note that these suspension proceedings have the character of stay proceedings or other proceedings for interim relief. Harm may arise from either continuing or ceasing the activities in question for the interim period and so assessments of the degree of change likely and the probable time required to fix the outcome are central. We must make our decision based on the best information available. Now, as was not the case when the Gen-

eral Statement of Policy was issued, we have not only the revised environmental survey itself but also the comments filed with us in response to the General Statement of Policy and a Natural Resources Defense Council petition for rulemaking as well. As reflected in the Statement of Considerations accompanying the proposed rule, the lengthy comments of the NRDC, in particular, were taken into account in the survey and so assisted us in reaching our judgment as to the immediacy and likely form of the new rule. 41 Fed. Reg. 45851 (October 18, 1976). As we said at that time "where data necessary for a complete quantative assessment of impact is lacking, the Commission's expert judgment must be brought to bear on the information available."

The environmental effects on a per-reactor basis of the uranium fuel cycle set out in the existing rule were found to be low and a large portion of those impacts is attributable to those parts of the rule upheld by the Court of Appeals. The revised survey confirms the basic correctness of most of the reprocessing and waste management entries in the existing table. The proposed new rule requires only a few substantial changes from the old rule, none of which appears likely to have any substantial total impact on the environment. *See,* "Environmental Survey of the Reprocessing and Waste Management Portions of the LWR Cycle," NUREG-0116 at pp. 2-17 to 2-19 and Table 2.10.[4] Generally, the impacts will be of a magnitude comparable to those which have long been approved in reactor licensing.

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[4] In five cases the new rule requires the use of substantially higher numerical values for impact. In three cases the revised survey takes into account items which were not reflected in the old Table S-3: (1) hydrogen chloride gas produced in the incineration of plastics; (2) carbon-14 derived from fuel reprocessing; and (3) buried waste. The hydrogen chloride amounts are small, not radio-

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Transcript of Oral Argument at 41-43 (October 26, 1976). In these circumstances it seems reasonable to suppose that an interim rule can be adopted, and adopted in approximately three months.

Thus, we believe it reasonable to expect that the interim rule as promulgated will closely resemble the proposed rule published on October 13, and like that proposed rule, will not produce results significantly different from those obtained under the current rule (10 CFR § 51.20(e)) which was in effect and applied with reference to the Seabrook licenses. The relatively slight change in the overall impact is of obvious significance to the suspension question, arguing strongly against suspension. It was a factor we could not properly have anticipated in August. When one also considers that the study produced no reason to doubt our earlier conclusion that changes in LWR design would not arise out of this analysis, it becomes apparent that suspension would be inappropriate.[5]

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active, and no significant impacts are expected. The carbon-14 adds only fractionally to the per reactor whole body dose commitment. No radiological environmental impact from solidified high-level waste is anticipated once it has been buried.

In addition, the revised table shows substantial increases in land commitment and in iodine release at the reprocessing plant. The increase in land commitment amounts to 30 acres per RRY (reference reactor year) temporarily committed and 3 acres per RRY permanently committed. The increased iodine due to iodine in the population thyroid dose commitment is comparable in magnitude to that which occurs incidental to the whole body dose commitment otherwise incurred.

In any event, depending upon the evolution of fuel cycle technology, the radiological impacts from actual facilities constructed in the future may be less than estimates based on present technology.

[5] For construction permits the conclusion is even stronger, since actual generation of waste remains many years in the future.

Furthermore, any uncertainty about the appropriate time frame for use in considering suspension of outstanding licenses and permits has been greatly diminished. In ALAB-349, the majority indicated its belief that the General Statement did not permit it to presume that a new fuel cycle rule would be in place by any particular date (slip opinion at 23), and raised the possibility that it might be as long as a year or more before such a rule was promulgated. Slip opinion at 24. But, as we indicated in our October 13, 1976, letter to all parties involved in show cause proceedings based on fuel cycle grounds, the nature and quality of the revised survey now issued provide a basis for some confidence that an interim rule can be in place within three months. Accordingly, in considering the suspension remedy with reference to an outstanding construction permit like Seabrook, it is now possible to set the appropriate time frame as three months.[6] Once an interim rule is in place, whatever results have been reached in the current show cause proceedings, such as Seabrook, might have to be reexamined in the light of that new rule. That would mean that the efforts being put forth by the Licensing and Appeal Boards as well as by the various parties in those proceedings would be largely wasted, since even if decisions were reached in those proceedings, which seems unlikely in most cases, they would be extremely short-lived.[7]

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[6] This is the time frame that the Appeal Board recently chose in *Union Electric Company* (Callaway Plant, Units 1 and 2), ALAB-352 (October 21, 1976), where it decided that construction should be allowed to continue.

[7] This consideration would be especially true here. The Appeal Board has already made an exhaustive analysis of the suspension question. Now that the circumstances are so greatly changed, it would have to reevaluate each factor in light of those new circumstances.

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NECNP points out that the revised survey is the submission of a party, the staff; that it has not yet been challenged by the comments of adverse parties; and that in part it rests on judgments, not facts. For these reasons, NECNP concludes that we cannot use the survey in any fashion. We do not accept this view.

To be sure, the staff is a party to the proceedings before us. But it is also an arm of the Commission and is the primary instrumentality through which we carry out our statutory responsibilities. It would be contrary to the facts of the administrative process to pretend that the staff is always merely a party whose submissions are to be given no more weight than those of any other party. On some questions, such as interpretation of statutes or judicial decisions, the staff submissions have no more weight than those of any other party. But in other cases that would not be so. It would be particularly wrong to treat the revised environmental survey as merely that of an interested party since the survey was carried out by the staff at the explicit direction of the Commission, was focused along lines set forth by the Commission, and was subject to ongoing Commission guidance during its preparation. And finally, we have had some opportunity to review the survey ourselves and our preliminary assessment is that it "can serve as an adequate foundation" for an interim rule. 41 Fed. Reg. 45851 (October 18, 1976).

To the extent that the revised survey indicates that some uncertainties do remain as to certain impacts, it is our judgment that those uncertainties are not such as to create any serious doubt as to the validity of the proposed rule. Finally, we note that although counsel for NECNP characterized the survey as a "hasty" one, no party offered any specific criticisms of the survey's conclusions, despite our

express invitation to the parties in setting the case for argument.[8] The survey was a review of existing literature by experts in the various disciplines involved and not an effort to do original research. It was made at a time when the Commission was already substantially engaged in assessing waste management goals and policies.[9] Consequently, much less time was necessary for its production than would have been required to produce new scientific data or to survey a field not already under study.[10]

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[8] Transcript of Oral Argument at 84 (October 26, 1976). The survey was made available to the parties October 13, thirteen days before the argument. Obviously, more criticism may be forthcoming during the comment period or the subsequent hearings. To repeat what we have said above, however, we must decide the suspension issue on the basis of the information now available to us.

[9] Appendix C of the survey describes the variety of programs presently being undertaken in this area by the NRC.

[10] Our reliance on the survey prepared by the NRC staff accords with the "presumption of validity accorded to administrative bodies acting within their sphere of expertise." *TNT Tariff Agents, Inc.* v. *I.C.C.*, 525 F.2d 1089, 1093 (2nd Cir. 1975); *Braniff Airways, Inc.* v. *C.A.B.*, 379 F.2d 453, 460 (D.C. Cir. 1967). In the fuel cycle decision, the court in a footnote implied that staff testimony offered in that proceeding was "peculiarly subject to considerations of self-interest" and would require more than notice and comment before they could be relied on by the agency. *NRDC* v. *NRC*, *supra*, slip opinion at 25, n.43. The only authority cited by the court for this extraordinary proposition is *Portland Cement Ass'n v. Ruckleshaus*, 486 F.2d 375, 400 n.95 (D.C. Cir. 1973), *cert. denied*, 417 U.S. 921 (1974), which involved a submission to an agency by a private party, not by the agency staff. Also, as the court noted in the fuel cycle decision, the Atomic Energy Commission had both developmental and regulatory responsibilities at the time of the relevant submission. Indeed, the testifying official had predominantly "developmental" responsibilities. The situation here is quite different. Pursuant to the Energy Reorganization Act of 1974, 42 U.S.C. § 5801 *et seq.*, we and our staff have only regulatory functions, thus reducing the possibility of "self-interest" in a staff document. Previous decisions of the D.C. Circuit indicate

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To summarize, we now have more and better information than did the Appeal Board which decided ALAB-349 concerning the timing and likely content of a revised interim fuel cycle, or than we had last August. The Commission now has good reason to believe it likely both that there will be an interim rule in place within three months, and that that rule will closely resemble the existing rule, 10 CFR § 51.20(e). Therefore, it seems unlikely that the cost benefit balance in the Seabrook proceeding would be tipped because of those changed impacts.

Significance of the Stay of Mandate in the Fuel Cycle Decision

Subsequent to the decision of the court of appeals in the fuel cycle case, various motions were presented to the court requesting that its mandate be stayed. Separate stay motions were filed by the Commission, the intervenor respondent Vermont Yankee Corporation, and by a group of utility company participants (Baltimore Gas and Electric Company, *et al.*) in the rulemaking culminating in the adoption of Table S-3. The motion of the Commission stated that the Commission was taking certain steps to implement the court's opinion, including that an Atomic Safety and Licensing Board had been reconvened "to consider whether the operating license for Vermont Yankee should be continued, modified, or suspended until an interim fuel cycle rule had been made effective," and that the Com-

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that the Commission may legitimately rely on staff submissions in appropriate circumstances. *Union of Concerned Scientists* v. *A.E.C.*, 499 F.2d 1069, 1077-80 (D.C. Cir. 1974); *Friends of the Earth* v. *AEC*, 485 F.2d 1031, 1033 (D.C. Cir. 1973) (separate statement of Bazelon, C.J.). Such limited reliance is particularly necessary where, as here, we must act on the basis of the information now available.

mission intended to reopen its rulemaking proceeding on the environmental effects of the uranium fuel cycle. The General Statement of Policy was appended to the motion spelling out how the Commission proposed to otherwise implement the court's decision. The Commission indicated that it would adhere to that Statement subject to possible changed procedures in light of the revised survey, and to the possibility that it would seek a further stay of mandate based on its results.[11]

The motion for stay of mandate filed by intervenor-respondent Vermont Yankee Corp. took issue with the Commission's reading of the court's decision as contained in the General Statement of Policy. It noted that the decision itself had not vacated the order authorizing issuance of the license to operate the Vermont Yankee Nuclear Power Station or the license itself. Yet, Vermont Yankee pointed out, the Commission had construed the decision as requiring reconsideration by the NRC of the continued operation of the Vermont Yankee station. Noting that the Commission had reconvened a Licensing Board to consider the status of the Vermont Yankee operating license, the intervenor

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[11] The Commission's motion stated,

> As the attached General Statement of Policy reflects, the NRC is considering a further request to this court, within a few weeks after September 30, which could form the basis for future licensing actions. Any such request would be based on a revised and documented environmental survey of the uranium fuel cycle's reprocessing and waste management stages, and would assess the likely impact of renewed licensing as against a continued halt.

Motion for Stay of Mandate and Correction of Opinion, August 20, 1976. That motion sought a stay until September 24, 1976, in order to allow time for the Solicitor General to consider whether a petition for certiorari was warranted. The Commission filed a motion for further stay of mandate, making similar representations, on September 15, 1976.

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argued that shutting down Vermont Yankee for even a short time would cause substantial and irreparable harm. The stay was sought to avoid this harm.

Similarly, the third motion for stay of mandate also took issue with the Commission's response to the decision, particularly with respect to show cause proceedings of the kind involved here. That motion argued that reopening proceedings for not only the Vermont Yankee reactor, but "all other licensed reactors as well" during the pendency of Supreme Court review would be inconsistent with the court's decision. As to outstanding construction permits, like the Seabrook permits, the motion cited "delay and disruption of construction schedules" as a reason for a stay. The plain intent of the motion was to produce an order suspending hearings of this kind.

On October 8, 1976, the United States Court of Appeals for the District of Columbia Circuit granted all three pending motions for stay of its mandate in the fuel cycle decision. The court's order granting these motions stated in relevant part as follows:

> Further ordered, by the court, that the foregoing motions for stay of mandate are granted, and the clerk is directed not to issue the mandate herein prior to October 31, 1976, on condition that the United States Nuclear Regulatory Commission shall make any licenses granted between July 21, 1976, and such time when the mandate is issued subject to the outcome of the proceedings herein.

Under applicable rules of appellate procedure (FRAP 41(b)), this means that the mandate in the fuel cycle case will not issue at least until the Supreme Court acts on the pending petitions for certiorari.

The parties take markedly different positions with respect to the significance of the court's order for the issue

presently before the Commission. NECNP argues that, by filing with the court a copy of the August 13 General Statement of Policy the Commission had committed itself to continued adherence to the Statement of Policy, should a stay be granted, apparently without regard to changed circumstances. New England Coalition on Nuclear Pollution Response to Briefs of Applicant and NRC Staff, October 22, 1976, at p. 6; Tr. of Oral Argument (hereinafter "argument"), October 26, 1976, at pp. 78-79. In issuing the stay of mandate, the NECNP argument goes, the Court of Appeals has, in effect, put its imprimatur on the procedures outlined in that statement, including the procedures for show cause proceedings like the Seabrook proceeding. The practical result of the NECNP position is that the Commission is now bound by the fuel cycle decision, as interpreted in the Statement of Policy, even though the mandate has been stayed, and that this suspension proceeding must be allowed to run its course, unless the Commission returns to court and obtains permission to act otherwise.

The applicant, Public Service Company of New Hampshire, reads the order very differently. Under its interpretation, the Court of Appeals decision invalidating portions of Table S-3 will have no legal effect until the mandate issues, save that new licenses must be conditioned on the outcome of the reopened rulemaking proceeding. Brief of Applicants, October 18, 1976 (hereinafter "Applicants' Brief"), at p. 29. Since Table S-3 was duly factored into the cost/benefit analysis in the Seabrook proceeding, the applicant's argument runs, its outstanding construction permits could not now be suspended on fuel cycle grounds absent new facts — facts which the revised survey has not uncovered. Beyond that, the applicant reads the Court of Appeals order as, in practical effect, an amendment or clarification of the court's earlier decision. Thus it argues

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that the court's language calling for conditioning of new licenses and permits on the outcome of the reopened rulemaking proceeding shows that the court never contemplated a cessation on licensing. Applicants' Brief, at p. 29. It argues from this that, *a fortiori*, the court did not contemplate any suspension of outstanding construction permits. Applicants' Brief, at pp. 29-30.

The staff believes that the General Statement of Policy should be viewed as a reasonable interpretation of the court's opinion, at the time it was issued, but one subject to revisitation in light of the completed survey and the court stay. Argument, at pp. 40-41. The staff thus rejects the intervenor NECNP's position that, notwithstanding the stay, the Commission is somehow bound by the court of appeals decision now that the stay has issued. In its view, the stay reflects the court's recognition that its decision may be overturned and that any mandatory effect can appropriately be postponed until the possibility of a successful appeal has been resolved. Argument at p. 39. But the Commission remains free, if the facts developed so warrant, to suspend licenses or take any other action required under its ordinary regulatory authority. Argument at p. 40. Under the staff's approach, the only legal constraint imposed by the stay is that new licenses issued after July 21, 1976, must be conditioned on the outcome of the fuel cycle decision as required by the explicit terms of the stay order. On the facts revealed by the survey, and considering the explicit permission given to continue licensing, the staff finds no basis in policy for continuing the present suspension proceedings.

The terms of the court's stay order do not directly answer the present question. However, we think it clear that the staff's position as to its effect is the most logical and

reasonable one.[12] There are several difficulties with the intervenor NECNP position. First, their contention that new operating licenses and construction permits may not be issued flies in the face of the explicit terms of the court's order granting the stay. Moreover, NECNP's position is directly contrary to hornbook principles of laws governing stays. A court acts only through its mandate. *Bailey* v. *Henslee*, 309 F.2d 840, 844 (8th Cir. 1962). When a mandate is stayed, a decision has no binding effect, save as the stay might be conditioned, as it was here with respect to the outcome of the fuel cycle decision. Furthermore, the NECNP position simply ignores the fact that the court granted not only the Commission's motion but also the motions of the Vermont Yankee Corporation and the utility group. Those petitions said nothing about continued adherence to the General Statement of Policy. On the contrary, they argued that suspension of construction permits, like the Seabrook permit, would be improper at least until the Supreme Court had an opportunity to decide whether to review. Finally, it would have been a simple matter for the court to say explicitly that its granting of a stay was conditioned on adherence to the General Statement of Policy. This it did not do.[13]

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[12] Admittedly, the meaning of the court's order is subject to different interpretations. We are transmitting a copy of this decision setting forth our assessment of the meaning of the order to the court for its information.

[13] NECNP attempts to explain the language about conditioning of new licenses by reference to the General Statement of Policy's statement that new licenses not requiring NEPA review (see 10 CFR 51.5(b)) and, if warranted by the revised survey, licenses in uncontested cases, might issue during the interim period. We see no merit in this contention. Such licenses were not at issue and were not specifically the subject of debate in the stay motions; they were referred to in the Statement of Policy, but not prominently discussed. Furthermore, the first category of licenses encompasses

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We wish to make clear, however, that in rejecting the NECNP position, we are not adopting the position that the Commission is disabled from acting with respect to Seabrook and other similar permits unless it goes through rulemaking procedures. Our discretion is not so cabined and confined. As we have stated, our review of the revised survey leads us to conclude, as a matter of discretion, that the Seabrook permit should not be suspended. However, had the updated survey indicated that the impacts associated with the uranium fuel cycle were much more serious than had heretofore been thought the case, or had the process leading to possible adoption of an interim rule appeared more complex, we might well have continued these suspension proceedings. There is, in our view, no serious question about our power so to act on the basis of information at hand in individual proceedings, without need for special rulemaking.

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activities, such as fuel loading or low-power testing, which are not "major federal actions" within the meaning of NEPA. It would be anomalous for the court to require that such licenses be conditioned on the outcome of a rulemaking designed to implement NEPA. The second category — licenses in uncontested cases — encompasses only a small number of licenses. About 70% of the active proceedings before the Commission, in which an applicant is seeking either a construction permit or an operating license for a commercial nuclear reactor, are presently contested, and the percentage of contested cases has been steadily rising.

Conclusion

The applicant and regulatory staff contend that the Appeal Board majority made errors of fact and misapplied the standards set forth in the General Statement of Policy in granting the suspension motion. Thus, the applicant claims that the Board's assessment of the amount of money that will not be spent if construction is halted was substantially too high and that the Board overestimated the environmental impacts associated with continued construction. The staff maintains that the increased investment which the Appeal Board majority thought might "tilt" the cost/benefit analysis in favor of Seabrook had already been included in the Licensing Board's cost/benefit analysis and that, in any event, the Appeal Board's "tilting" analysis was unbalanced because it failed to consider whether suspension of construction might "tilt" the balance against Seabrook and in favor of alternatives to it. Tr. pp. 52-53.

We need not, and do not, resolve these complex and essentially factual contentions, for several reasons. As a general matter, this Commission does not sit to review factual determinations made by its subordinate panels. While, of course, we have the authority to do that, and have exercised that authority on occasion (*see Consolidated Edison Company of New York, Inc.* (Indian Point Station, Unit No. 3), 2 NRC 379), it is simply practical for us to do so in most cases. We have discussed, with the benefit of hindsight, how key premises of the Appeal Board majority's decision have been called into question by subsequent developments. Assuming, then, that there may be merit in some of the exceptions raised by the applicant and staff with respect to the decision below, and given practical constraints, these matters could only be resolved by remanding the case to the Board with instructions to reapply the stan-

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dards set forth in the General Statement of Policy in the light of changed circumstances.

Several considerations lead us not to adopt that course. In the first place, the parties have made it clear that they do not desire a remand of this matter. Tr. pp. 36, 61, 104. Moreover, with reference to environmental impacts to be anticipated in the period between now and anticipated adoption of an interim rule — obviously a prime consideration in considering a suspension of construction to protect environmental values — we note that the Appeal Board majority did not find such impacts sufficient in themselves to justify suspension on fuel cycle grounds, and that the intervenor NECNP does not except to that conclusion. Furthermore, we note that the issue of anticipated environmental impacts is presently under consideration by the Appeal Board in connection with its reconsideration of an application for a stay pending appeal. Thus, the matter of environmental impacts in the near term is being carefully considered.

But while these considerations point away from a remand in this proceeding, we believe that the considerations of broader impact we have discussed — concerning the timing and likely content of a revised fuel cycle rule — warrant suspension of this and other ongoing proceedings concerning outstanding licenses and permits pending anticipated adoption of a revised interim rule, probably by January 1977. Substantially for the reasons given in this opinion, we are in substance granting the Vermont Yankee Corporation's motion by suspending, with one exception,[14] other ongoing proceedings based on the General Statement of

[14] The *Midland* proceeding will continue with respect to other issues, with fuel cycle issues to be held in abeyance pending adoption of an interim rule.

Policy. The effect of these actions is to shift from the case-by-case approach we felt constrained to adopt with respect to outstanding licenses in the Statement of Policy, before we had the benefit of the revised survey. In the light of the survey, we now feel amply justified in making a generic determination that outstanding licenses need not be considered for suspension on fuel cycle grounds during the relatively brief period between this action and anticipated adoption of a revised rule.

The entry of orders in this and other pending show cause proceedings concerning outstanding licenses and permits is also fully consistent with a Supplemental General Statement of Policy we are issuing today setting forth interim procedures to govern assessment of fuel cycle impacts associated with new licenses and permits. In such cases, we are directing the Licensing Boards, until an interim rule is in place, to apply present Table S-3 values and to determine in addition whether the new values indicated by the revised survey would change the cost/benefit balance adversely to the proposed reactor. Should the new values tilt the balance in a particular case, action on the license or permit will be withheld pending adoption of an interim rule. The differing approaches we propose to follow with respect to new as compared with outstanding licenses are fully appropriate. The court of appeals stay of mandate is conditioned upon our making new licenses subject to the outcome of that proceeding. To help ensure that any licenses issued will, in fact, be able to comply with any such condition, we have directed that Licensing Boards and our staff apply the data supplied by the survey as the best present indication of the ultimate outcome of our reopened proceedings. The stay of mandate's condition does not apply to outstanding licenses like Seabrook that were issued before the court's decision. In view of the necessary dis-

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ruptions attendant upon the suspension remedy, the results of the revised survey, and the time frame for a revised rule, we conclude that that remedy is not presently warranted.

This does not necessarily mean that the results of the reopened rulemaking proceeding cannot ultimately be factored into consideration of whether an outstanding license or permit should be suspended, conditioned, or revoked. Indeed, given the time schedule of the present proceeding,[15] it appears that the Appeal Board will be in a position, if necessary, to factor the new values in the anticipated interim rule into the cost/benefit analysis when it decides the merits of the pending appeals from the initial decision. See *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station), 8 AEC 79 (1974). And when the interim rule is in place, we will reconsider whether the other proceedings we are suspending today should be reopened.

In view of the foregoing, these proceedings are suspended.[16] The outstanding construction permits shall remain in effect, subject to the appeal and stay proceedings pending before the Appeal Board.

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[15] Oral argument is anticipated in mid-December. Order of September 21, 1976. Given the complexity of the case, it seems unlikely that a decision on the merits of all issues would be rendered any earlier than February 1977.

[16] We, of course, reserve authority to take action in the interim, should unexpected developments require.

It is so ORDERED.[17]

SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.
this 5th day of November, 1976.

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[17] We have received three requests from non-parties for an opportunity to participate or file papers in this proceeding. Consumers Power Company has filed a motion for leave to file a brief amicus curiae with respect to ALAB-349. The Governor of the State of New Hampshire filed a later petition for intervention, and also requested leave to file an amicus statement. The New England Council for Economic Development requested permission to insert into the record various petitions and letters, and a statement. The intervenor NECNP opposed all of those requests. The staff opposed the petition to intervene but did not object to the requests to file written submissions.

The late petition to intervene is denied. The requests to file written submissions are granted on an amicus curiae basis.

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